

R&D | TRAINING | TECHNOLOGY TRANSFER

# COMPOSITES ROBOTICS ADDITIVE MANUFACTURING





### **MISSIONS**

Compositadour is a technological platform specialised in advanced processes: Composites, Robotics and Additive Manufacturing. A true platform for experimenting with the Factory of the Future's digital and robotic technologies, Compositadour provides high-tech equipment and mobilises its network of skills, from laboratories, SME's and major industrial groups to develop innovative projects.

To help businesses appropriate these new technologies, Compositadour carries out the following missions:

### R&D

In partnership with industry, Compositadour initiates and carries out R&D programmes for new parts and manufacturing processes with outstanding research teams.

### Training

In association with vocational training players, Compositadour provides courses for operators, technicians and engineers in composites, automating and robotising processes, and additive metal manufacturing.

### Technology transfer

The platform's teams helps industry (SME, ETI, large groups) to integrate new solutions developed.

Compositadour is a structuring project and part of the Aerospace Valley cluster



# POSITIONING

Generally speaking, Compositadour's activities are on a maturity level between TRL3 and TRL6, ie. from proof of concept to demonstrating the technology in a real environment.

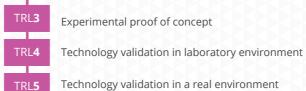
However, for certain projects the platform can also provide support for:

- academic research players (TRL1 & TRL2)
- industrial players through technology transfer (TRL7, TRL8 & TRL9)



- Basic principles observed and reported
- Technology concept and/or application formulated TRL2

### **Compositadour's activities**



TRL8

- T.

TRL9

TRL1



Technology validation in a real environment

System demonstration in a real environment TRL6

### Industrial transfer

TRL7 System demonstration in operational environment

Complete system qualification

Real system demonstration in operational environment

# **SERVICES**

Compositadour satisfies the needs of industry from design to the development of new / improved processes and products, as far as prototyping and even industrial pre-launch:



### **TECHNOLOGIES**

#### Composites

- High-performance composites
- Automated tape lay-up, fiber placement, winding
- Prepeg, RTM, infusion
- Autoclave, oven, press polymerisation
- Robotic machining
- NDI: ultrasonic and geometrical inspection

### Robotics

- Design of complex automated / robotic systems
- Software development, off-line programming
- Robotic demonstration cells / cobotics

#### Large sized additive manufacturing

- Modelling, simulation
- Powder deposit
- Wire deposit
- Powder bed



## **KEY ADVANTAGES**

- An open platform bringing together players (1)from the research industry and training
- High-tech equipments capable of 1:1 scale demonstrators (2) in serial configuration
- A team of multi-disciplinary experts (modelling/simulation, 3 composite materials, metalworking, robotics, software, etc.)
- (4)
- Supported by ESTIA Institute of Technology & ESTIA Research
- (5) Controlled quality environment (ISO 9001 certification)



### CONTACTS



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18





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